

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY PIEDMONT REGIONAL OFFICE 4949-A Cox Road, Glen Allen, Virginia 23060 (804) 527-5020 Fax (804) 527-5106

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David K. Paylor Director

Preston Bryant Secretary of Natural Resources

STATEMENT OF LEGAL AND FACTUAL BASIS

Waste Management of Virginia, Inc. Maplewood Recycling and Disposal Facility 20221 Maplewood Road - Jetersville, Virginia 23870 Permit No. PRO 30993

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Maplewood Recycling & Disposal Facility has applied for a Title V Operating Permit for its Jetersville facility. The Department has reviewed the application and has prepared a Title V Operating Permit.

Engineer/Permit Contact.	"Sparky" H.L. Lisle, Jr. (804) 527-5148	Date:	11-12-200
Air Permit Manager:	(James E. Kyle, P.E.	Date:	11/12/2019
Deputy Regional Director: _	Kyle Jvar Winter, P.E.	Date:	11/12/09

FACILITY INFORMATION

<u>Permittee</u>
Waste Management of Virginia, Inc. (Amelia Landfill Facility)
P.O. Box 168
Amelia, VA 23002

Facility
Maplewood Recycling and Disposal Facility
20221 Maplewood Road
Jetersville, Virginia 23870

Responsible Official: Mr. Brian McClung, District Manager - (804) 561-5787

Contact Person: Mr. Jason Williams, Environmental Protection Manager

County Plant ID No. 51-007-0010

SOURCE DESCRIPTION

NAICS 562212 (SIC Code 4953) - This facility consists of a municipal solid waste landfill that collects the landfill gas and burns it primarily in flares. The facility may also use the landfill gas as an alternative fuel in the INGENCO plant (separate facility permit). The Maplewood Recyclina and Disposal Facility (the "Maplewood Facility") is a non-hazardous municipal solid waste (MSW) land recycling and disposal facility located at 20221 Maplewood Road, Jetersville, VA (Amelia County) and is operated by Waste Management of Virginia, Inc. Due to a name change, the facility also operates under the terms of Solid Waste Permit No. 540, issued to Chambers Waste Systems of Virginia, Incorporated. This facility consists of a MSW landfill that is a generator of landfill gas, including non-methane organic compounds (NMOCs). The facility is a Title V major source of NMOCs as defined under the New Source Performance Standard (NSPS) Subpart WWW and National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart AAAA for MSW landfills. This source is located in an attainment area for all pollutants, and is not a PSD major source. Federal Register (71 FR 53274), "The United States Environmental Protection Agency proposes "amendments to the Landfills NSPS, emission guidelines, Federal plan, and Landfills NESHAP to clarify who is responsible for compliance activities where multiple parties are involved in the ownership or operation of a landfill and the associated landfill gas collection, control, and/or treatment systems".

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, was conducted on December 6, 2007. The facility was determined to be Out of Compliance for items found in the semi-annual report and the annual certification (see attached). Waste Management submitted explanation/corrective action on March 7, 2008 by Letter for items found in Inspection Year 2007. The items were the subject of a warning letter dated November 5, 2009. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. No compliance plan is required and these items are considered resolved.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

Facility to be modified (subject to NSPS WWW and MACT AAAA) consists of:

Reference No.	Equipment Description	Rated Capacity	Federal Requirements	Original Permit Date
CF-1	Parnel Biogas Utility Flare with a maximum flow rating of 3000 SCFM and equipped with a blower with a maximum flow rating of 3000 SCFM.	3000 SCFM	NSPS Subpart WWW NESHAP Subpart AAAA	01/28/2003
CF-2	Parnel Biogas Utility Flare with a maximum flow rating of 3000 SCFM and equipped with a blower with a maximum flow rating of 3000 SCFM.	3000 SCFM	NSPS Subpart WWW NESHAP Subpart AAAA	09/27/2007
LF-1	Municipal Solid Waste Landfill Phases 1 through 34 with a total capacity of 43,000,000 cubic yards (maximum compaction of 1700 lbs/ cubic yards) of combined waste.	43,000,000 cubic yards	NSPS Subpart WWW NESHAP Subpart AAAA	01/28/2003

^{*}The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

⁽⁹ VAC 5-80-1100 and Condition 1 of the NSR permit dated 06/17/2009)

EMISSIONS INVENTORY

The Maplewood Recycling and Disposal Landfill most recent annual emissions is shown below. Emission levels are expected to increase over time as the landfill waste decomposes.

PLANTWIDE EMISSIONS SUMMARY ITONS PE CRITERIA POLLUTANTS	POTENTIAL EMISSIONS	2008 ACTUAL EMISSIONS
Particulate Matter (PM10)	16.1	6.2
Particulate Matter (PM2.5)	16.1	5.3
Nitrogen Oxides (NOx)	58.6	4.6
Sulfur Dioxide (SO2)	14.0	1.6
Carbon Monoxide (CO)	129.3	19.9
NMOC/VOC *Flare Emissions	10.2/3.9	0.8/0.3

EMISSION UNIT APPLICABLE REQUIREMENTS

Limitations

Landfill - LF-1 (including control equipment CF-1 and CF-2)

All conditions of the NSR permit dated 06/17/2009 are contained in the Title V permit with the same condition numbers (except General Conditions). The Title V permit was completely revised to include the conditions from the NSR permit. The Landfill limitations are contained in conditions 2-17 of the NSR permit dated 06/17/2009 and are contained in the Title V permit.

The following Virginia Administrative Code and New Source Performance Standards have specific emission requirements that have been determined to be applicable:

- 40 CFR 60 Subpart WWW Standards of Performance for Municipal Solid Waste Landfills Applicable to the flares (CF-1 and CF-2) and other portions of the landfill gas collection and control system (LF-1).
- ▶ 40 CFR 63 Subpart AAAA National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills – Applicable to the entire landfill including the gas collection and control system (LF-1) and the flares (CF-1 and CF-2).

The following conditions are found in the Stationary Source Permit dated 06/17/2009.

Condition 2.

The design capacity of Maplewood MSW landfill which includes Phases 1 through 34 is 43,000,000 cubic yards and a change may require a permit to construct and operate per (40 CFR 60.752(a)(2)).

Condition 3.

The active landfill gas (LFG) collection and control system shall be operated per 40 CFR 60.752(b)(2)(ii)(A).

Conditions 4 and 5.

The open flares are subject to the requirements of 40 CFR 60.18 and 40 CFR 60.756.

Condition 6.

The facility shall control dust emissions per 9 VAC 5-50-90.

Condition 7.

The facility shall demonstrate compliance with the operational standards per 40 CFR 60.753.

Condition 8.

The facility shall demonstrate compliance with the operational standards per 40 CFR 63.1930 through 63.1990.

Condition 9.

The facility shall provide an up to date Gas Collection and Control System (GCCS) Design plan per 40 CFR 60.752.

Condition 10.

The facility shall constructed and operated per 40 CFR 63.1930 through 63.1990.

Condition 11.

The facility shall demonstrate compliance with the operational standards per 40 CFR 60.753(e).

Conditions 12, 13, 14, 15, 16 and 17.

The flares shall be operated per 40 CFR 60.753(f). The flares shall burn LFG and propane to ignite the pilot flame. No visible emissions should exist from the open flare except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. The flare fuel and emission limits and emission factors are also contained in the permit.

Testing

The Landfill testing requirements are contained in conditions 18-20 of the NSR permit dated 06/17/2009 and are contained in the Title V permit.

Condition 18.

An initial performance test to determine the net heating value of the gas being combusted and the actual exit velocity for each flare shall be performed, and demonstrate compliance per 40 CFR 60.752(iii) (B), within 60 days after achieving maximum production rate at which each flare will be operated, but no later than 180 days after initial startup of each flare.

Condition 19.

The requirement to determine NMOC concentration and LFG flow rate per 40 CFR 60.754(b) upon landfill closure is contained in the permit.

Condition 20.

Also, a concurrent VEE for the flares shall be performed.

Monitoring

The Landfill monitoring requirements are contained in conditions 21 through 25 of the NSR permit dated 06/17/2009 and are contained in the Title V permit.

Condition 21.

The monitoring requirements listed in the Title V permit have been drafted to meet Part 70 requirements and those contained in 40 CFR 60.756. This includes monthly monitoring cover integrity and wellhead gauge pressure, LFG temperature, nitrogen or oxygen concentration. Also Gas monitoring probes are to be checked quarterly.

Condition 22.

For open flare measure LFG flow recorded once every 15 minutes per 40 CFR 60.757(c)(2)(ii), the presents of a flare flame using a heat sensing device that records continuously per 40 CFR 60.758(b)(4).

Condition 23.

If monitoring demonstrates that the requirements pertaining to the landfill operational standards are not being met, corrective action shall be taken as specified in 40 CFR 60.755.

Condition 24.

Surface monitoring shall be conducted and all appropriate data recorded per 40 CFR 60.756 (f).

Condition 25.

The GCCS shall be monitored and all appropriate data recorded per 40 CFR 60,756 (f).

Recordkeeping

The Landfill recordkeeping requirements are contained in condition 26 of the NSR permit dated 06/17/2009 and are contained in the Title V permit.

Condition 26.

The permit includes requirements for maintaining records of all monitoring and testing required by 40 CFR 60.758 and the regulations. These records include a long list such as the annual placement of municipal solid waste in the landfill, the annual throughput of landfill gas, control efficiency tests of the control equipment, and all monitoring information for the GCCS and flares. The specific requirements are listed in 40 CFR 60.758.

Reporting

The Landfill reporting requirements are contained in conditions 27 through 31 of the NSR permit dated 06/17/2009 and are contained in the Title V permit.

Conditions 27, 28, 29, 30 and 31.

All reports required by NSPS Subpart WWW shall be prepared and submitted to US EPA and the Piedmont Regional Office in accordance with procedures outlined in NSPS Subpart WWW (Section 60.757).

Notification

The Landfill notification requirements are contained in condition 32 of the NSR permit dated 06/17/2009.

Condition 32.

The permit includes requirements to report flare installation, startup, performance and changes to the Gas Collection and Control System Design Plan.

Facility Wide

The landfill is NESHAP Subpart AAAA and NSPS Subpart WWW applicable and must make semiannual reports using the SSM Plan as required.

Streamlined Requirements

All conditions of the NSR permit dated 09/27/2007 are contained in the Title V permit (except General Conditions). None were streamlined for this renewal.

60.752(a) - The owner or operator shall submit an initial design capacity report to the Administrator.

The facility submitted this report on June 11, 1996. This report contained all information required by Subpart WWW. Therefore, this requirement in Subpart WWW is obsolete.

60.757(f) - submittal of the initial annual report;

The facility submitted this report on March 9, 2001. This report contained all information required by Subpart WWW. Therefore, this requirement in Subpart WWW is obsolete.

60.757(c) - submittal and DEQ approval of the collection and control system design plan;

The requirement to submit an initial Gas Collection and Control System (GCCS) design plan was completed on about June 12, 1997 (last plan approval was May 27, 2008).

Initial performance testing for the CF-1 unit has been completed and reports have been submitted.

The currently permitted flares, CF-1 and CF-2 initial performance testing consistent with the provisions of 40 CFR 60.8 and 60.18 was conducted and approved as follows:

Testing Date

Test Report Received Approved

CF-1

February 4, 2002 March 7, 2002

June 18, 2002

CF-2

(Flare Not Installed)

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §§ 2.1-20.01:2 and §§ 10.1-1185 of the Code of Virginia, and the "Department of Environmental Quality Agency Policy Statement No. 3-2001."

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emissions reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to 9 VAC 5-20-180 including Title V facilities. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four day time business hours after discovery of the malfunction.

^{*} Installed flare met the operating and emission limitations of 40 CFR 60.18 during the initial performance Tests.

U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on General Condition F.

Note: The requirements of 40 CFR 63.6(e)(3) and 40 CFR 63.1960 supersedes all other requirements.

Y. Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

STATE ONLY APPLICABLE REQUIREMENTS

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

- 1. 9 VAC 5 Chapter 50, Part II, Article 2: Standards of Performance for Odorous Emissions
- 2. 9 VAC Chapter 50, Part II, Article 3: Standards of Performance for Toxic Pollutants (9 VAC 5-80-110 N and 9 VAC 5-80-300)

The state only applicable requirement for an odor management plan (NSR Permit dated 06/17/2009, condition 43) is included in the Title V permit.

FUTURE APPLICABLE REQUIREMENTS

All applicable requirements in NSPS Subpart WWW and NESHAP Subpart AAAA for landfills are contained in the permit at this time. However, it must be recognized that amendments have been proposed in the Federal Register (published on September 8, 2006) to these subparts and that future promulgation of theses amendments to the regulations may impact this operating permit. "The United States Environmental Protection Agency proposes "amendments to the Landfills NSPS, emission guidelines, Federal plan, and Landfills NESHAP to clarify who is responsible for compliance activities where multiple parties are involved in the ownership or operation of a landfill and the associated landfill gas collection, control, and/or treatment systems". See attached copy of Federal Register (71 FR 53274) – NSPS WWW/NESHAP AAAA Clarification.

Future modification (or new installation) of the small existing compression ignition (CI) internal combustion engine (ICE) may result in the applicability of 40 CFR 60, NSPS Subpart IIII (Section 60.4200(a)(3), Am I subject to this subpart?).

INAPPLICABLE REQUIREMENTS

The following inapplicable requirements were identified in the application.

Citation	Title of Citation	Description of Applicability
9 VAC 5-40-5800 and 40 CFR 60 subpart Cc	Emission Standards and Emission Guidelines for Sanitary Landfills	These regulations only apply to municipal solid waste landfills which commenced construction, reconstruction or modification before May 30 1991.
40 CFR 60 subpart Kb	Volatile Organic Liquid Storage Vessels	The leachate storage tanks have a vapor pressure below the 40 CFR 60 Subpart Kb thresholds.
40 CFR 60 subparts CB- VVV, Subparts AAAA - KKKK	Multiple NSPS	The source categories cited in these regulations do not exist at the facility.
40 CFR 61, subparts B – L, Subparts N – Z, and Subparts AA - FF	Multiple NESHAPS	The source categories cited in these regulations do not exist at the facility.
40 CFR 63, subparts B – U, AA – ZZ, AAA – XXX, CCCC – ZZZZ, AAAAA – TITTT, BBBBBB and DDDDDD - NNNNNN	Multiple MACTS	The source categories cited in these regulations do not exist at the facility.
40 CFR 64	Compliance Assurance Monitoring	The Landfill is subject to an NSPS that was proposed after 11/15/1990. Therefore, this regulation does not apply.
40 CFR 75	Acid Rain Regulations	This landfill does not have a "Qualifying Facility."

COMPLIANCE PLAN

A full compliance evaluation of this facility, including a site visit, was conducted on September 23, 2008. The facility was determined to be Out of Compliance for items found in the semi-annual report and the annual certification (see attached Email). Waste Management submitted explanation/corrective action on April 17, 2009 by Email for items found in Inspection Year 2008. The items were the subject of a warning letter dated November 5, 2009. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. No compliance plan is required and these items are considered resolved.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, record keeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

The application listed these insignificant emission units:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity 9 VAC 5-80-720 C)
LT-1	Leachate Storage Tank	9 VAV 5-8-720B2	VOC/HAPs	260,000 Gallons
LT-2	Leachate Storage Tank	9 VAV 5-8-720B2	VOC/HAPs	260,000 Gallons
AST-1	Fuel Oil Storage Tank	9 VAV 5-8-720B2	VOC	10,000 Gallons
AST-2	Fuel Oil Storage Tank	9 VAV 5-8-720C3	voc	500 Gallons
AST-3	Gasoline Tank	9 VAV 5-8-720C3	voc	500 Gallons
AST-4	Hydraulic Oil Tank	9 VAV 5-8-720C3	voc	550 Gallons
AST-5	Used Oil Tank	9 VAV 5-8-720C3	voc	550 Gallons
AST-6	Transmission Oil Tank	9 VAV 5-8-720C3	voc	275 Gallons
AST-7	Transmission Oil Tank	9 VAV 5-8-720C3	voc	275 Gallons
AST-8	Diesel Tank (on service truck)	9 VAV 5-8-720B2	voc	2,000 Gallons
AST-9	Four Oil Tanks (on service truck)	9 VAV 5-8-720C3	voc	300 Gallons each
AST-10	Two Lube Oil Tanks (on service truck)	9 VAV 5-8-720C3	voc	100 Gallons each
PT-1	Propane Tank (at shop)	9 VAV 5-8-720B2	VOC	1,000 Gallons
PT-2	Propane Tank (at shop)	9 VAV 5-8-720B2	VOC	1,000 Gallons

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Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity 9 VAC 5-80-720 C)
PT-3	Propane Tank (maintenance Building)	9 VAV 5-8-720B2	voc	100 Gallons
PT-4	Propane Tank (maintenance Building)	9 VAV 5-8-720B2	voc	100 Gallons
PT-5	Propane Tank	9 VAV 5-8-720B2	voc	100 Gallons
PT-6	Propane Tank (at Flare)	9 VAV 5-8-720B2	voc	100 Gallons
PW-1	Parts Washing Station	9 VAV 5-8-720B2	VOC	15 Gallons
WELD-1	Welder on Service Truck	9 VAV 5-8-720A	voc	250 Amps
GEN-1	Generator	9 VAV 5-8-720C*	NOx, CO, VOC, SO2, PM, HAPs	10.5 Kw
GEN-2	Troy Built Generator	9 VAV 5-8-720C	NOx, CO, VOC, SO2, PM, HAPs	3.55 Kw
ENG-1	Ingersoll Rand T30 Air Compressor	9 VAV 5-8-720C	NOx, CO, VOC, SO2, PM, HAPs	15 HP
ENG-2	Ingersoll Rand T30 Air Compressor	9 VAV 5-8-720C	NOx, CO, VOC, SO2, PM, HAPs	5 HP
ENG-3	Honda Air Compressor	9 VAV 5-8-720C	NOx, CO, VOC, SO2, PM, HAPs	5.5 HP
ENG-4	Honda Air Compressor	9 VAV 5-8-720C	NOx, CO, VOC, SO2, PM, HAPs	5.5 HP
ENG-5	Honda Air Compressor	9 VAV 5-8-720C	NOx, CO, VOC, SO2, PM, HAPs	5.5 HP
LP-1	Site-Lite Light Plant	9 VAV 5-8-720C	NOx, CO, VOC, SO2, PM, HAPs	25 Amps

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Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity 9 VAC 5-80-720 C)
LP-2	Site-Lite Light Plant	9 VAV 5-8-720C	NOx, CO, VOC, SO2, PM, HAPs	25 Amps

^{*} See Future Applicable Requirements.

¹The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application

9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

A public notice regarding the draft permit was placed in The Amelia Bulletin Monitor newspaper in Amelia County, Virginia on September 24, 2009. The United States Environmental Protection Agency (EPA) was sent a copy of the draft permit and notified of the public notice on September 24, 2009. There are no affected states within a 50-mile radius of the facility. All persons on the Title V mailing list were sent a copy of the public notice by e-mail, fax or letter on September 24, 2009.

Public comments were accepted from September 24, 2009, through October 26, 2009. No comments were received from the public or the US EPA during the concurrent comment periods.